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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,205	09/02/2003	Yo Yanagida	06753.0563	1713

22852 7590 01/12/2006

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EXAMINER	
CAVALLARI, DANIEL J	
ART UNIT	PAPER NUMBER
2836	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/652,205	YANAGIDA ET AL.	
	Examiner	Art Unit	
	Daniel J. Cavallari	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/2/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 9/2/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claims 1 & 3 are objected to because of the following informalities:

Claim 1 recites the limitation "the electronic control units" however only one electronic control unit is previously disclosed "...included in an electronic control unit...". There is insufficient antecedent basis for this limitation in the claim. The claim will be examined as best understood to mean "...between electronic control units."

Claim 3 recites the limitation "the first junction", "the voltage diving resistors", "the second junction", and "the second input terminal" however none of these are previously disclosed in claim 1. Although these limitations are disclosed in claim 2, it is insufficient as it must be disclosed in a claim preceding claim 3 in which 3 is dependant on. The claim will be examined as best understood to mean "a first junction", "voltage diving resistors", "a second junction", and "a second input terminal".

There is insufficient antecedent basis for the limitations in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble to claim 1 is a grammatically incorrect. "A power line communication device for vehicle comprising" is incomplete. A suggested correct sentence structure is "...device for a vehicle comprising:" The claim contains other grammatically incorrect references of "for vehicle" which should be corrected and will be interpreted to mean "a vehicle".

Claim 1 recites the limitation of "a standard level". It is unclear what is meant by "a standard level". The claim will be examined as best understood in which "a standard level" is read as "a voltage potential"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Counsell et al. (US 5,859,584).

In regard to claim 1

Counsell et al. (Hereinafter referred to as Counsell) teaches:

- A power line communication device for a vehicle (See Column 1, Lines 8-11)
- A voltage follower, read on by components C5, R5, R7, C3, R8) (See Figure 3) which receives a communication signal from an input terminal (12V Line) (See Figure 3 & Column 2, Lines 44-52) and generates a voltage potential for comparison by a comparator (See Column 2, Lines 44-52) which follows DC voltage fluctuations at the input terminal (12V Line) and outputs the voltage potential and communication signal to a comparator (See Pins 2 & 3 of Figure 3)
- A comparator (U1) configured to receive the voltage potential at Pin 3 (See Figure 3)
- Wherein the power line communication (Receiver, See Figure 3) device is included in an electronic control unit (10 & 11)(See Figure 1) for controlling respective functions of a vehicle (See Column 1, Lines 8-11) and connected to the power line (12V, See figure 1) supplying DC power to the vehicle (See Column 1, Line 57 to Column 2, Line 3) and configured to receive communication signals, read on by the receiver (Receive) (See Figure 1 & Column 2, Lines 39 to 52) superimposed on the DC power line, separate and extract the communication signal superimposed on the DC component and superimpose and transmit the generated communication signal, read on by the transmitter (Transmit) (See Figure 1 & Column 2, Lines 4-38) and transmits and receives the communication signal between electronic control units (10 & 11) (See Figure 1)

In regard to Claims 2 & 3

- A comparator (U1) comprising a first and second input, read on by pins 3 & 2 respectively (See Figure 3)
- The voltage follower comprising voltage diving resistor (R7 & R8) connected in series between a high voltage power source (12V Line) and a low voltage power source (5V) (See Figure 3)
- A capacitor (C3) configured to remove a given frequency component from the communication signal (See Figure 3 & Column 2, Line 53 to Column 3, Line 3)
- A first junction of the voltage dividing resistors, read on by the connection of resistor R8 with the first input (pin 3) of comparator (U1) and a second junction (Resistor R7) connected to the second input (pin 2) of comparator (U1) and the capacitor (C3) connected between the second input terminal (2) and the low voltage power source (5V)
- A filter, read on by capacitor (C5) configured to remove a given frequency component from the reception communication and obtain a DC component in which the filter is connected to the first input terminal (pin 3) (See Figure 3 & Column 2, Line 53 to Column 3, Line 3)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Yanagida et al. (US 2004/0207262 A1) teaches a power line communication device incorporating a comparator unit (5) (See Figure 1)
- Yanagida et al. (US 2004/0189090 A1) teaches a power line communication device incorporating a comparator unit (5) (See Figure 1)
- Nerone et al. (US 6,800,957) teaches a vehicle power conversion system.
- Knapp et al. (US 6,229,435) teaches a data over power line device that transmits data in a vehicle (See Abstract) utilizing comparators (U1) (See Figure 1a) and (U2) (See Figure 1b)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

December 29, 2005

BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
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